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THE GENUS *BRATTIA* BEYOND SOUTH AMERICA (ARANEAE, LINYPHIIDAE)

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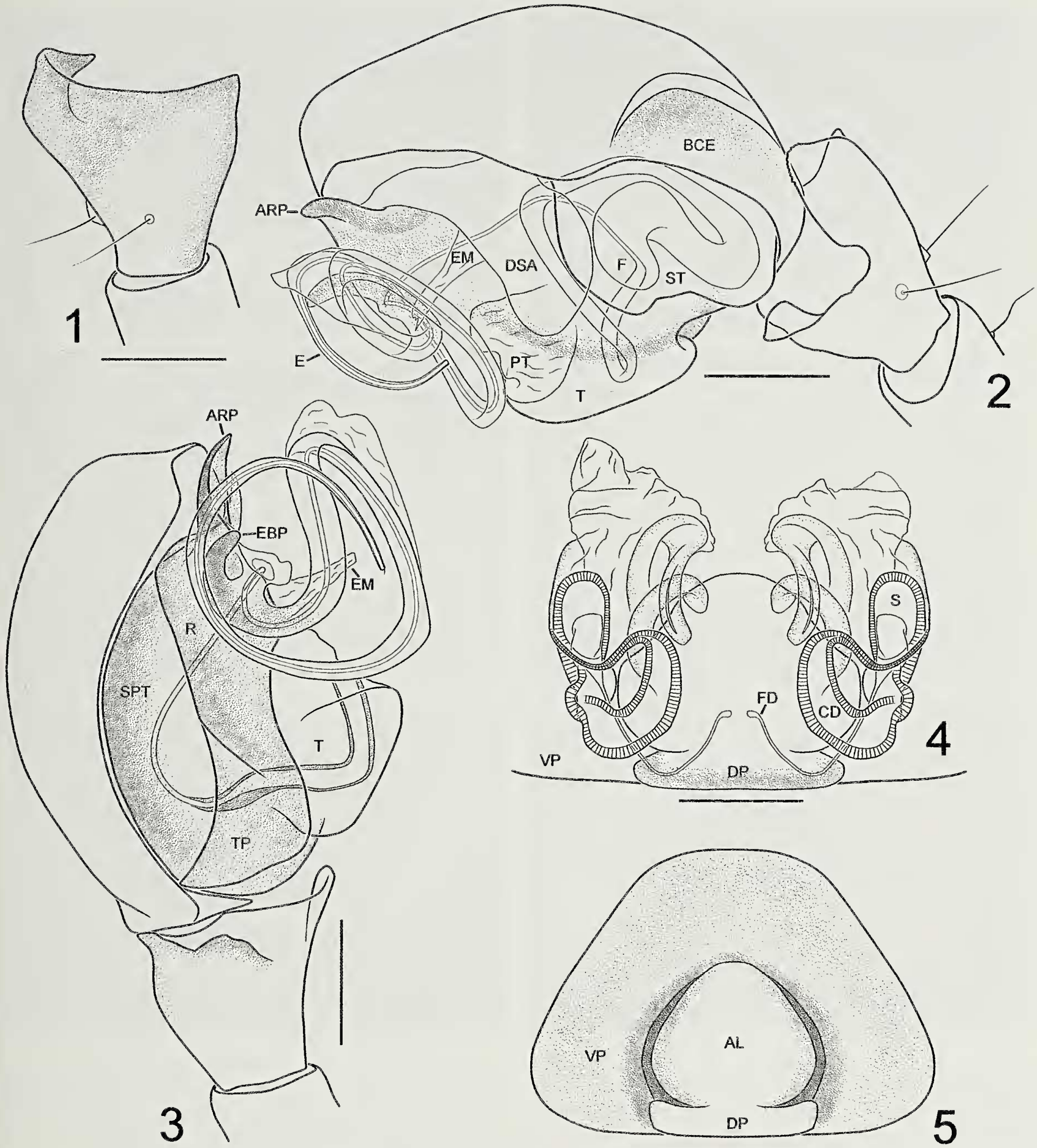
ABSTRACT. *Brattia* species (Linyphiidae) from Africa and the Philippines are not congeneric with the type species of *Brattia*. The type species of the genus, *Brattia spadicaria* Simon, and other Neotropical *Brattia* species were recently transferred to *Sphecozone* O. Pickard-Cambridge; Old World *Brattia* species were explicitly excluded from *Sphecozone*. *Sphecozone spadicaria* and Old World *Brattia* species are redescribed and illustrated. *Brattia africana* Simon is transferred to *Pachydelphus* Jocqué & Bosmans; *B. scutilla* is transferred to *Apobrata* new genus; *B. dubia* is transferred to the theridiid genus *Anelosimus* Simon.

Keywords: *Sphecozone*, *Pachydelphus*, *Apobrata*, *Anelosimus*, taxonomy, Asia, Africa

Simon (1894) established the genus *Brattia* to accommodate three species: *B. spadicaria* Simon 1894, the type species from Venezuela and nearby countries, *B. africana* Simon 1894 from Gabon and Sierra Leone, and *B. scutilla* Simon 1894 from the Philippines. Simon provided no illustrations for any of these three species. Tullgren (1910) added a fourth species, *B. dubia* from Mt. Kilimanjaro, Tanzania, providing the first illustrations of a *Brattia* species. *Brattia spadicaria* was illustrated by Baert (1987) and later by Millidge (1991), both of whom described additional *Brattia* species from the Neotropics. To date, *B. africana* and *B. scutilla* have not been illustrated.

Close affinity between *B. spadicaria* and Old World *Brattia* species has been doubted by several authors. Tullgren (1910:144) placed a question mark after *Brattia* in his original description of *B. dubia* and noted the presence of some theridiid characteristics in *B. dubia*. Holm (1962:23) examined the type of *B. dubia* and noted that *B. dubia* belongs to the Theridiidae, not Linyphiidae. Since Holm did not provide a theridiid genus for *B. dubia*, catalogers have continued to list *B. dubia* in the Linyphiidae (Brignoli 1983; Platnick 1989, 1993, 1997, 2004; Scharff 1990). In addition to his published note on *B. dubia*, Holm examined the vials of *B. africana* and *B. scutilla* examined for this paper. Holm set aside specimens in microvials labeled "lectotypes," although he never published these designations. Millidge (1991:179) expressed doubt that *B. africana* and *B. scutilla* are congeneric with the Neotropical species, but did not claim to have examined the African or Philippine species.

My own research on Neotropical erigonines led to the synonymy of *Brattia* with *Sphecozone* O. Pickard-Cambridge, 1870 (Miller in press). This synonymy was based on comparisons of *Brattia spadicaria* and other Neotropical *Brattia* species with *Sphecozone*. Old World *Brattia* species were explicitly excluded from *Sphecozone*, rendering them orphan species without a proper genus. Males of *Sphecozone* are diagnosed in part by the absence of a paracymbium and the presence of a basal cymbial excavation (Figs. 2, 7, 9); females are diagnosed in part by the presence of a dorsal plate that is exposed as a wide plate with an anterior lobe in ventral view, and by copulatory openings that usually take the form of narrow crescent to round paired atria (Figs. 5, 10; further details in Miller in press). Males of *B. africana* and *B. scutilla* both have a well-developed paracymbium and lack a basal cymbial excavation, and so require assignment to some other genus; females of *B. africana* and *B. scutilla* both lack an exposed anterior lobe of the dorsal plate, and paired atria. Holm (1962:23) correctly indicated that *B. dubia* is a theridiid, and should be associated with some theridiid genus.

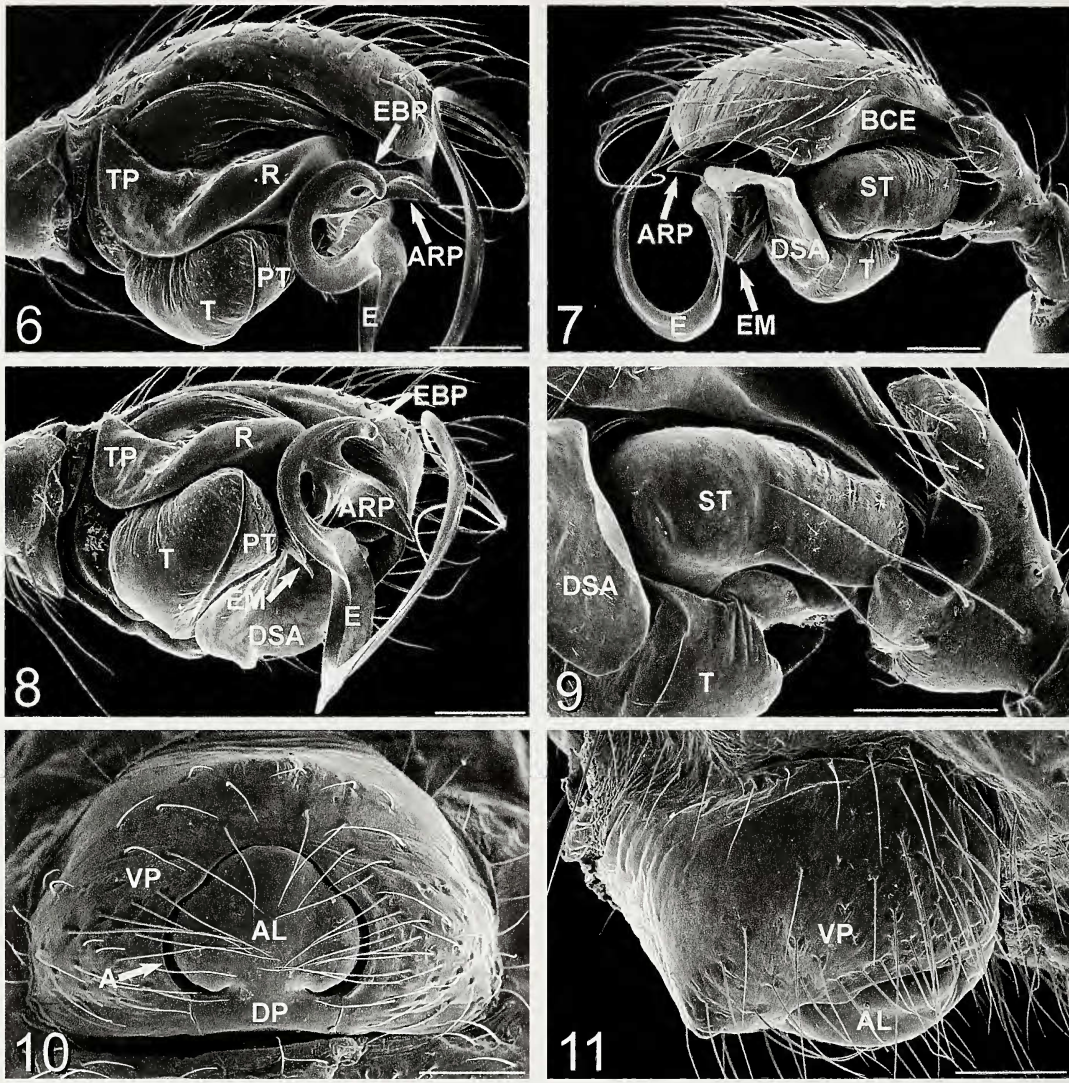


Figures 1–5.—*Sphecozone spadicaria* (Simon): 1–3, left palp of male from Arima, Trinidad; 1, palpal tibia; 2, retrolateral view; 3, prolateral view; 4, 5, epigynum of female from Alto Tolu, Colombia; 4, cleared, dorsal view; 5, ventral view. Scale bars = 0.1 mm. See text for abbreviations.

METHODS

Specimens were examined and illustrated using an Olympus BH-2 compound microscope and a Leica MZ APO dissecting microscope, fitted with drawing tubes. Palpi (and the epigynum of *Sphecozone spadicaria* only) were examined using methyl salicylate as a temporary clearing agent (Holm 1979), then positioned for illustration on a temporary slide using the method described in Coddington (1983). Illustrations of epigyna in ventral view were based on photographs taken using a Nikon DXM 1200 digital camera mounted on a Wild M10; multiple images were combined using Auto-Montage by Syncroscopy (version 4.01).

SEM images were taken using the AMRAY 1800 at the National Museum of Natural His-



Figures 6–11.—*Sphecozone spadicaria* (Simon) from Finca Bella Vista, Colombia, scanning electron micrographs: 6–9, male palp; 6, prolateral view; 7, retrolateral view; 8, ventral view; 9, palpal tibia, retrolateral view; 10, 11, epigynum; 10, ventral view; 11, lateral view. Images 6–9 taken from right palp, reversed to appear as left palp. Scale bars = 0.1 mm. See text for abbreviations.

tory Scanning Electron Microscope Facility. Specimens for SEM examination were air dried and sputter coated with gold-palladium. Specimens were attached to round-headed rivets using polyvinyl resin dissolved in acetone (polyvinyl acetate).

All measurements are in millimeters taken using a reticle in the dissecting microscope. Eye measurements were based on the lens at its widest point. Total length measurements (front of clypeus to posterior of abdomen) are approximate and may be influenced by the angle the abdomen is held at and changes in the size of the abdomen due to preservation artifacts (Hormiga 1994, 2000). Carapace measurements were made in dorsal view. Leg articles were measured in lateral view along the dorsal margin. The position of the first metatarsal trichobothrium (TmI) is expressed as the ratio of the distance between the proximal margin of the metatarsus and the root of the trichobothrium divided by the total length of the metatarsus (Denis 1949; Locket & Millidge 1953).

Abbreviations and conventions.—References to figures published elsewhere are listed in lowercase type (fig. or pl.); references to figures in this paper are listed with an initial capital (Fig.). In the synonymy section, references to descriptions are differentiated from catalog listings by the presence of male (♂) and/or female (♀) symbols, as appropriate, following the citation. When data labels did not include geographic coordinates, I attempted to determine the approximate location using maps and gazetteers. Once the location was inferred, the coordinates were included in [square brackets]; coordinates taken directly from the data label are given in (parentheses). The following anatomical abbreviations are used in the text and figures: A = atrium; AL = anterior lobe of dorsal epigynal plate; ALE = anterior lateral eye; AME = anterior median eye; ARP = anterior radical process; BCE = basal cymbial excavation; CD = copulatory duct; CL = column; DP = dorsal plate of epigynum; DSA = distal suprategular apophysis; E = embolus; EBP = embolic basal process; EM = embolic membrane; F = fundus; FD = fertilization duct; PC = paracymbium; PLE = posterior lateral eye; PME = posterior median eye; PT = protegulum; R = radix; S = spermatheca; SPT = suprategulum; ST = subtegulum; T = tegulum; TmI = position of first metatarsal trichobothrium; TmIV = fourth metatarsal trichobothrium; TP = tailpiece of radix; VP = ventral plate of epigynum.

Material used in this study was borrowed from the following institutions: California Academy of Sciences, San Francisco, USA (CAS), Instituto de Ciencias Naturales, Bogotá, Colombia (ICN), Naturhistoriska Riksmuseet, Stockholm, Sweden (NHRM), Muséum National d'Histoire Naturelle, Paris, France (MNHN); one specimen collected by the author has been deposited in the National Museum of Natural History, Smithsonian Institution, Washington, D.C., USA (USNM).

TAXONOMY

Family Linyphiidae Blackwall 1859
Genus *Sphecozone* O. Pickard-Cambridge 1870

Sphecozone O. Pickard-Cambridge 1870:733; Simon 1894:673; Petrunkevitch 1928:132; Bonnet 1958:4117; van Helsdingen 1979:410–412; Millidge 1985:66–68, 1991:165–166; Wunderlich 1987:170 (in part). Type species by monotypy *Sphecozone rubescens* O. Pickard-Cambridge 1870.

Clitolyna Simon 1894:673; Bonnet 1956:1101. Type species by monotypy and original designation *Erigone fastibilis* Keyserling 1886. Synonymy in Miller, in press.

Clitolina. Petrunkevitch 1928:129. *Lapsus calami*.

Brattia Simon 1894:673–674; Petrunkevitch 1928: 129; Bonnet, 1955:914; Baert 1987:261–262; Millidge 1991:179. Type species by original designation *Brattia spadicaria* Simon 1894. Synonymy in Miller in press.

Hypselistoides Tullgren 1901:202; Simon 1903: 995; Petrunkevitch 1928:131; Bonnet 1957:2266. Type species by monotypy *Hypselistoides affinis* Tullgren 1901. Synonymy in Millidge 1985:66.

Gymnocymbium Millidge 1991:184. Type species by original designation *Gymnocymbium grave* Millidge 1991. Synonymy in Miller in press.

Diagnosis.—Males of *Sphecozone* are distinguished from other linyphiid genera by the absence of a paracymbium and the presence of a basal excavation of the cymbium on the retrolateral side (Figs. 2, 7). *Tutaibo* Chamberlin 1916, the only other genus known to have this basal cymbial excavation, has a well-developed paracymbium. *Psilocymbium* Millidge 1991, *Gonatoraphis* Millidge 1991, *Dolabritor* Millidge 1991, and *Moyosi* Miller in press, all of which have the paracymbium absent or small and fused to the base of the cymbium, all lack a basal excavation of the cymbium. Among erigonines, the loss or extreme reduction of the paracymbium seems to be limited to the Neotropical genera listed above. Female *Sphecozone* can be problematic to diagnose in the absence of males. All species have a dorsal plate that is exposed as a wide plate with an anterior lobe in ventral view (Figs. 5, 10). Copulatory openings are usually narrow crescent to round paired atria. Spermathecae may be round or oblong. The epigynum itself may project out strongly from the abdomen (Fig. 11). Unassociated females may be most easily confused with *Tutaibo*, which has the origin of the copulatory ducts on the ectal side of the spermathecae (Millidge 1991, fig. 671), posterior or mesal in *Sphecozone* (Fig. 4). *Tutaibo* females also lack an atrium; *Sphecozone* usually has an atrium (Figs. 5, 10), but it can be subtle or absent. Further details in Miller in press.

Sphecozone spadicaria (Simon 1894)
Figs. 1–11

Brattia spadicaria Simon 1894:674 (♂♀); Petrunkevitch 1911:220, 1928:129; Roewer 1942:705;

Bonnet 1955:914; Baert 1987:262, figs. 1–6 (♂♀); Platnick 1989:223, 1993:250, 2004; Millidge 1991:179, figs. 767–772 (♂♀).
Sphecozone spadicaria. Miller in press, figs. 2C,D, 150, 151C, 160, 161, 165 (♂♀).

Types.—VENEZUELA: Caracas [10°31′N, 66°57′W], syntypes: six males, six females (MNHN, examined).

Diagnosis.—Male distinguished from other *Sphecozone* species by the membranous form of the distal suprategular apophysis (Figs. 2, 7) and the form of the palpal tibia, especially the retroventral origin of one of the two tibial apophyses (Figs. 2, 9). Female distinguished from other *Sphecozone* species except *S. melanocephala*, *S. castanea*, and *S. novaeteutoniae* by the form of the epigynum, which projects out strongly from the abdomen (Fig. 11); see Miller (in press; also Baert 1987; Millidge 1991) for diagnosis from these species.

Description.—Male (from near Sasaima, Finca Bella Vista, Cundinamarca, Colombia): Total length 2.15. Carapace 0.94 long, 0.78 wide, dusky orange. Abdomen light gray, darker around spinnerets. Clypeus 0.16 high. AME diameter 0.074, ALE 0.068, PME 0.049, PLE 0.074, AME separation 0.75 times their diameter, AME-ALE separation 0.82 times one ALE diameter, PME separation 0.50 times their diameter, PME-PLE separation 0.83 times one PLE diameter. Sternum 0.53 long, 0.56 wide, dusky orange. Coxa IV separation 1.08 times their width. Chelicerae dusky orange, with six promarginal teeth, five retromarginal teeth. Legs dusky orange, tibia I length 1.01, metatarsus I length 0.85, tarsus I length 0.62; tibia I 13.33 times longer than thick; TmI 0.21; TmIV absent. Palpal tibia with one prolateral, one retrolateral trichobothrium; tibial apophysis short, arises from retrodorsal region, second shorter apophysis arises from retrovental region (Figs. 2, 9). Protegulum without papillae; tegulum with tiny papillae (Fig. 8); distal suprategular apophysis long, membranous (Figs. 2, 7). Radix with spiral tailpiece; anterior radical process present (Figs. 2, 6); small embolic membrane present (Figs. 3, 8). Embolus membranous, very long and flexible, embolic basal process present (Figs. 6, 8).

Female (same locality as male): Total length 2.18. Carapace 0.94 long, 0.81 wide, dusky orange. Abdomen light gray, darker around spinnerets. Clypeus 0.17 high. AME diameter 0.049, ALE 0.068, PME 0.062, PLE 0.062, AME separation 0.50 times their diameter, AME-ALE separation 1.00 times one ALE diameter, PME separation 0.90 times their diameter, PME-PLE separation 1.20 times one PLE diameter. Sternum 0.52 long, 0.58 wide, dusky orange. Coxa IV separation 1.29 times their width. Chelicerae dusky orange, with six promarginal teeth, five retromarginal teeth. Legs dusky orange, tibia I length 0.95, metatarsus I length 0.80, tarsus I length 0.61; tibia I 10.71 longer than thick; TmI 0.22. Palpal tibia with one prolateral, one retrolateral trichobothrium; Epigynum projects out from abdomen (Fig. 11), with paired crescent atria (Fig. 10), oblong spermathecae (Fig. 4). Copulatory ducts weakly sclerotized. Fertilization ducts originate from posterior part of spermathecae, run posteriomesally, then anteriomesally (Fig. 4). Dorsal plate with large anterior lobe, rounded anteriorly (Fig. 5).

Distribution.—Trinidad, Venezuela, Colombia.

Additional Material Examined.—COLOMBIA: *Cundinamarca*: Cachipay Alto Tolu [5°16′N, 74°34′W], 5 December 1996, 1600 m, 1♀, E. Florez (ICN); Finca Bella Vista, nr. Sasaima [4°58′N, 74°26′W], 26 March 1965, 1♂, 1♀, P.R. and D.L. Craig (CAS). TRINIDAD AND TOBAGO: *Trinidad*: Arima (10°37′N, 61°16′W), 29 June 1999, 1♂, J. Miller (USNM).

Genus *Pachydelphus* Jocqué & Bosmans 1983

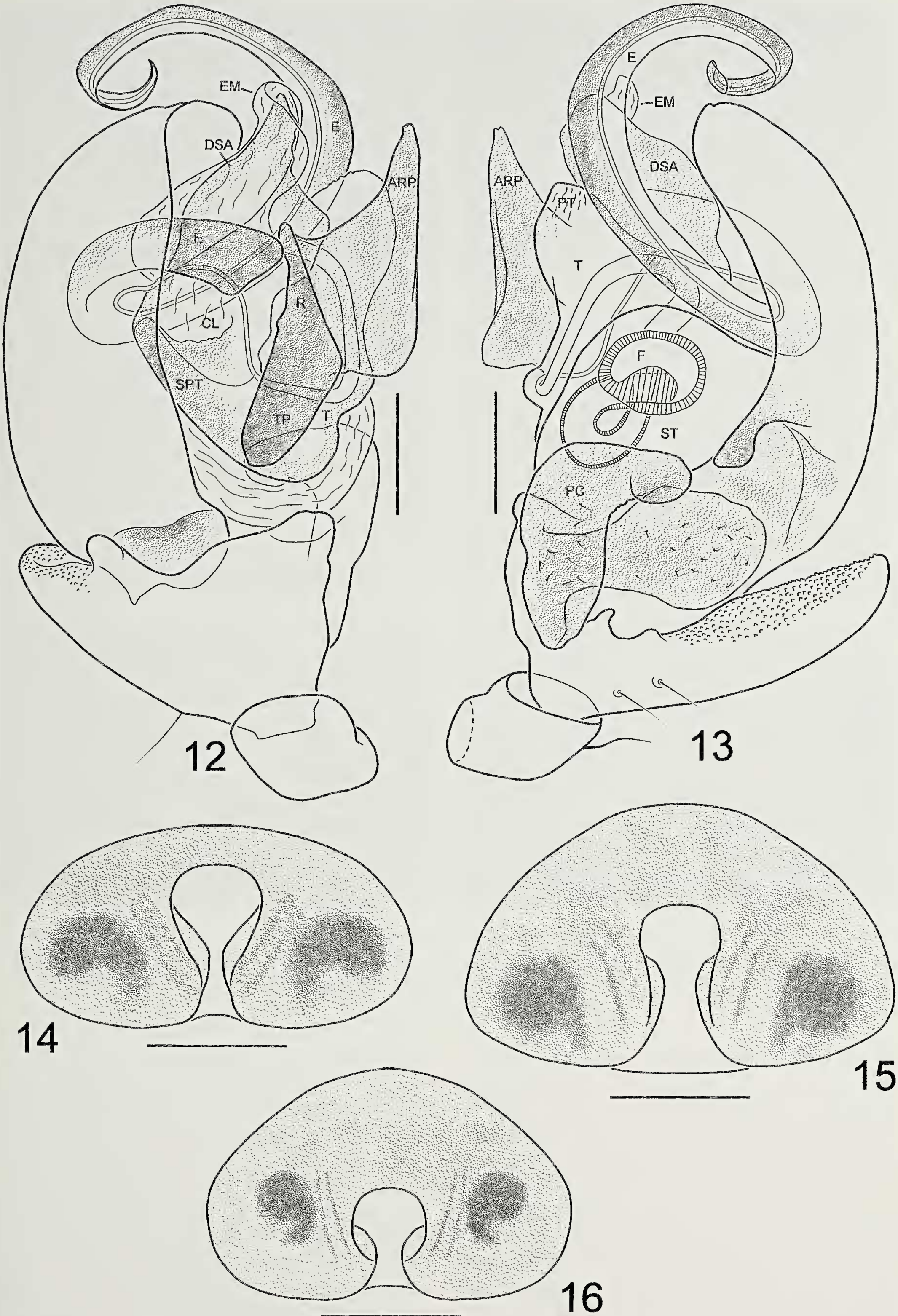
Pachydelphus Jocqué & Bosmans 1983:3. Type species by original designation *Pachydelphus banco* Jocqué & Bosmans 1983.

Pachydelphus africanus (Simon 1894) NEW COMBINATION
Figs. 12–22

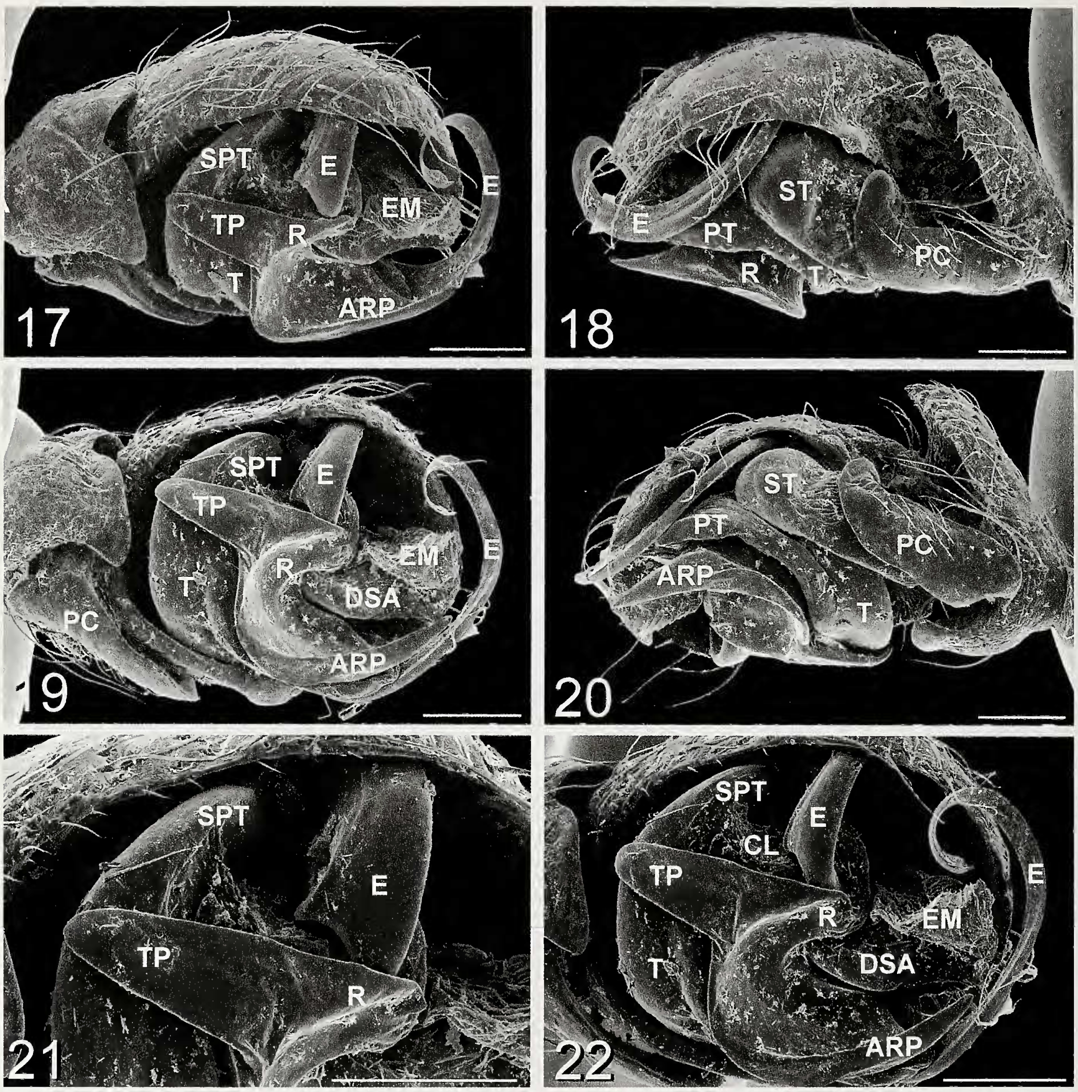
Brattia africana Simon 1894:674 (♂♀); Roewer 1942:705; Bonnet 1955:914; Platnick 2004.

Types.—GABON: lectotype male, six paralectotype males, eight paralectotype females, two paralectotype juveniles (NMHN, 11683, examined). Holm indicated the male lectotype by placing it in a labeled microvial. Simon (1894) indicated that additional specimens were known from Sierra Leone, but these could not be located.

Justification of transfer.—*Pachydelphus*



Figures 12–16.—*Pachydelphus africanus* (Simon), paralectotypes: 12, 13, left palp of male; 12, prolateral view; 13, retrolateral view; 14–16 female epigyna, ventral view, three individuals. Scale bars = 0.1 mm. See text for abbreviations.



Figures 17–22.—*Pachydelphus africanus* (Simon), paralectotype, scanning electron micrographs of male palp: 17, prolateral view; 18, retrolateral view; 19, proventral view; 20, retroventral view; 21, detail, base of embolus; 22, detail, embolic division. Scale bars = 0.1 mm. See text for abbreviations.

Jocqué & Bosmans 1983 is known from three species, but only *P. banco* Jocqué & Bosmans 1983 has the male described. Unlike *P. africanus*, the male of *P. banco* has a cephalic lobe bearing the PME (Jocqué & Bosmans 1983, fig. 1). The structure of the male palp is quite similar in *P. banco* and *P. africanus*, both having the first coil of the embolus running under the cymbium (Figs. 12, 17; Jocqué & Bosmans 1983, fig. 6), a similarly-shaped radix (Fig. 22; "L" in Jocqué & Bosmans 1983, fig. 6), and a field of seta-bearing tubercles on the distal margin of the palpal tibia (Fig. 18; Jocqué & Bosmans 1983, fig. 3). Females of *Pachydelphus* have a protruding epigynum with a deeply invaginated ventral plate. *Pachydelphus africanus* is the second member of the genus from Gabon; the remaining species are known from Ivory Coast. The chaetotaxy of *Pachydelphus africanus* is consistent with descriptions of other *Pachydelphus* species: dorsal tibial macrosetae 2-2-1-1, TmI located near the middle of the segment, TmIV present, one prolateral, two retrolateral trichobothria on palpal tibia. *Parasisis amurensis* Eskov 1984, the sole species in a genus from northeastern Asia, probably also belongs to *Pachydelphus*.

Diagnosis.—Males of *P. africanus* differ from *P. banco* by the presence of a PME cephalic lobe in *P. banco* (Jocqué & Bosmans 1983, fig. 1), absent in *P. africanus*, by the length of the distal suprategular apophysis, which is much longer in *P. banco* (Jocqué & Bosmans 1983, figs. 4, 6) than *P. africanus* (Figs. 13, 22), and by the shape of the paracymbium, which has a proximodorsally projecting apophysis in *P. banco* (Jocqué & Bosmans 1983, fig. 4), no such apophysis in *P. africanus* (Figs. 13, 18). Females of *P. africanus* distinguished from those of other *Pachydelphus* species by the shape of the ventral plate invagination, which is narrowest anteriorly in *P. banco*, 1983, *P. tonqui* Jocqué & Bosmans, 1983 (Jocqué & Bosmans 1983, figs. 8, 12), and *P. coiffaiti* Jocqué, 1983 (Jocqué 1983, fig. 17), keyhole-shaped in *P. africanus* with a narrow part medially and wider anteriorly (Figs. 14–16). Note that *Parasisis amurensis* shares with *P. africanus* a keyhole-shaped invagination (Eskov 1984, fig. 5, Saito 1987, fig. 17).

Description.—Male (lectotype): Total length 1.88. Carapace 0.78 long, 0.66 wide, pale yellow. Abdomen white. Clypeus 0.15 high. AME diameter 0.040, ALE 0.074, PME 0.065, PLE 0.065, AME separation 0.85 times their diameter, AME-ALE separation 0.46 times one ALE diameter, PME separation 0.88 times their diameter, PME-PLE separation 0.57 times one PLE diameter. Sternum 0.43 long, 0.46 wide, dusky yellow. Coxa IV separation 0.91 times their width. Chelicerae yellow, dorsal spur absent, fang furrow tapered, with five promarginal teeth, four retromarginal teeth. Legs pale yellow, dorsal tibial macrosetae 2-2-1-1, tibia I length 0.84, metatarsus I length 0.80, tarsus I length 0.58; tibia I 11.33 times longer than wide; TmI 0.50; TmIV present. Palpal coxae without tubercles. Palpal tibia with one prolateral, two retrolateral trichobothria; distal margin with field of small tubercles bearing setae; tibial apophysis broad, projects dorsodistally. Cymbium somewhat excavated retrobasally near origin of paracymbium, with small process along cymbial margin anterior to excavation (Fig. 18). Paracymbium robust, spiral, with several short setae basally, ventrally, and on ectal face (Figs. 13, 18, 20). Subtegulum robust, ectal to tegulum; fundus nearly perpendicular to axis of palpal bulb (Fig. 13). Protegulum pointed, without papillae (Figs. 18, 20); junction between tegulum and suprategulum continuous (Fig. 12). Radix with flat, tapered tailpiece projecting posteriorly (Fig. 17); anterior radical process robust, tapered, arises from ectal part of radix, curves distally (Fig. 22); embolic membrane present (Fig. 22). Embolus arises from column, not fused to radix, passes under cymbium emerging on retrolateral side (Figs. 12, 21).

Female (paralectotype): Total length 1.95. Carapace 0.78 long, 0.61 wide, pale yellow. Abdomen white, darker dorsally. Clypeus 0.14 high. AME diameter 0.037, ALE 0.068, PME 0.059, PLE 0.068, AME separation 0.83 times their diameter, AME-ALE separation 0.45 times one ALE diameter, PME separation 0.91 times their diameter, PME-PLE separation 0.59 times one PLE diameter. Sternum 0.51 long, 0.44 wide, dusky yellow. Coxa IV separation 1.32 times their width. Chelicerae yellow, with five promarginal teeth, four retromarginal teeth. Legs pale yellow, dorsal tibial macrosetae 1-1-1-1, tibia I length 0.83, metatarsus I length 0.76, tarsus I length 0.54; tibia I 10.50 times longer than wide; TmI 0.43; TmIV present. Epigynum slightly protruding. Ventral plate with keyhole-shaped invagination revealing dorsal plate above (Figs. 14–16). Spermathecae widely spaced.

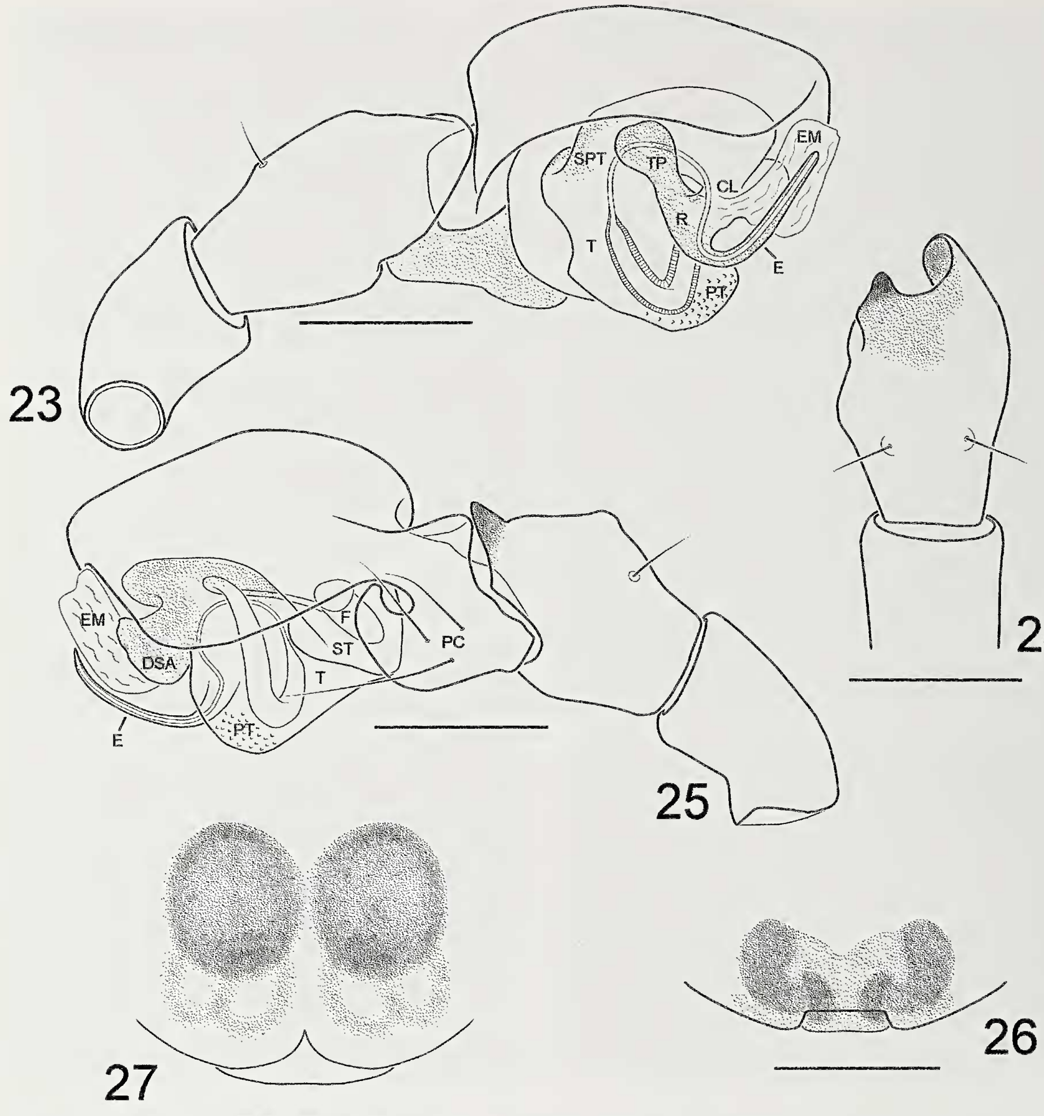
Variation.—The shape of the epigynum is quite variable among the paralectotypes. The invagination of the ventral plate may be deep, projecting nearly to the anterior margin of the epigynum, or shallow, not reaching the anterior margin of the spermathecae (Figs. 14–16).

Apobrata NEW GENUS

Type species.—*Brattia scutilla* Simon 1894.

Etymology.—From the Greek prefix *apo*, meaning from or separate, and a contraction of the genus name *Brattia* Simon 1894. The gender is feminine.

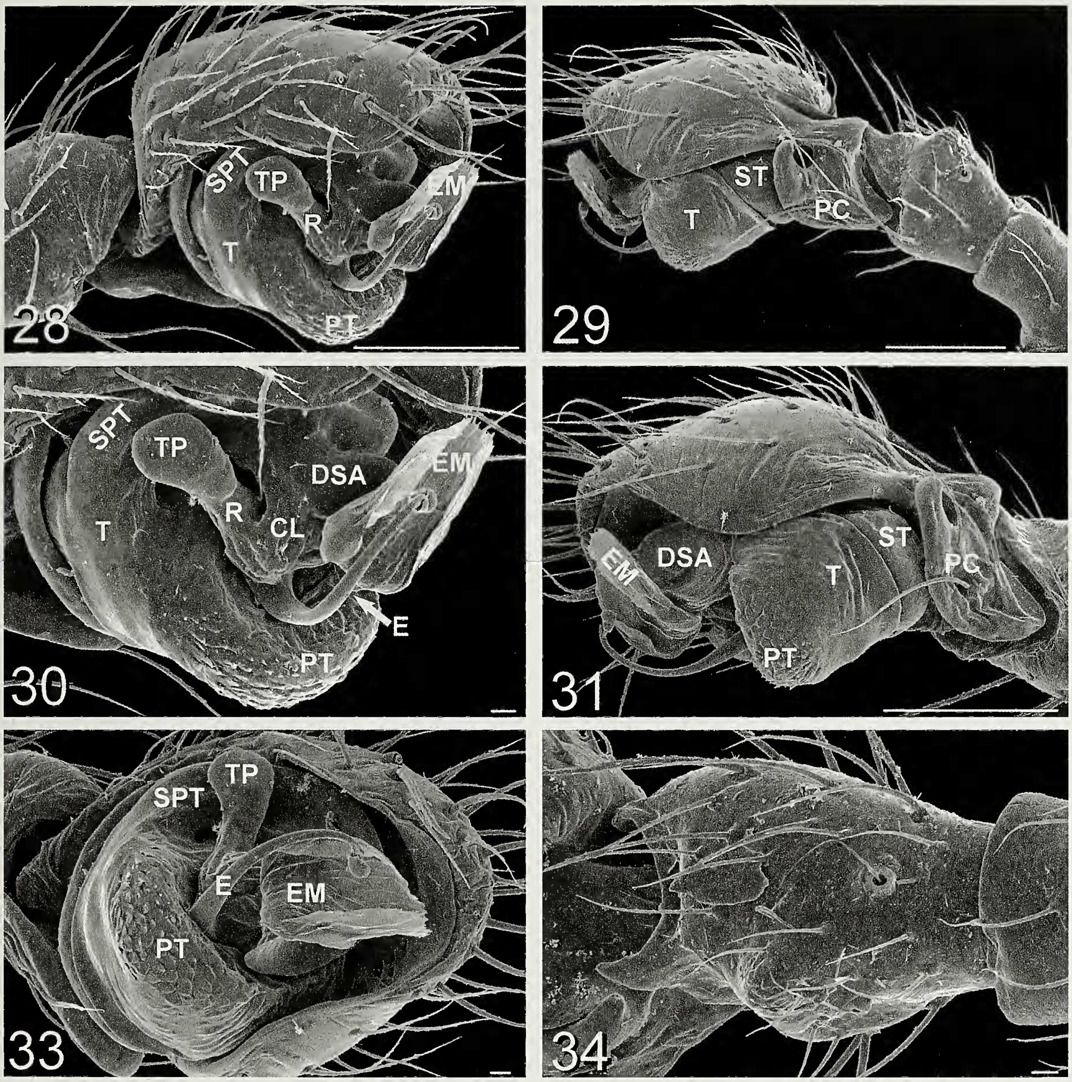
Diagnosis.—*Apobrata* is distinguished from all other erigonine genera by the following combination of characters in the male palp: paracymbium in the form of a flat hook with a strong groove at the junction with the cymbium (Figs. 25, 29), radical tailpiece teardrop shaped, continuous with a moderately



Figures 23–26.—*Apobrata scutilla* (Simon), paralectotypes; 27, *Anelosimus dubius* (Tullgren), syntype. 23–25, left palp of male; 26, 27, epigynum, ventral view. 23, prolateral view; 24, palpal tibia; 25, retrolateral view. Scale bars = 0.1 mm. See text for abbreviations.

long curved embolus (Figs. 23, 30), and palpal tibia with two short apophyses (Figs. 24, 34). Confirmatory characteristics include the presence of a single dorsal macroseta on all tibiae, the absence of a TmIV, and the absence of any cephalic lobes in the male.

The embolic division, the well-developed protegulum, and the form of the epigynum in *Apobrata* are similar to those of *Abacoproeces* (Wiehle 1960, figs. 168, 169; Millidge 1977, fig. 98), some *Tapinocyba* (Millidge 1977, fig. 45; Hormiga 2000, fig. 27), and some *Mecynargus* (Millidge 1977, fig. 47; Roberts 1993, fig. 49a, b). Of these, only *Apobrata* has a groove at the dorsal margin of the paracymbium. The male prosoma of *Abacoproeces* species (Wiehle 1960, figs. 170—172; Thaler 1973, figs. 1, 2), some *Mecynargus* species (Heimer & Nentwig 1991, fig. 646.5), and most or all *Tapinocyba* species (Wiehle 1960, figs. 978, 986, 993; Roberts 1993, fig. 74c–f) is modified with lobes and/or lateral sulci. The



Figures 28–34.—*Apobrata scutilla* (Simon), paralectotype, scanning electron micrographs of male palp: 28, prolateral view; 29, retrolateral view with palpal tibia; 30, detail, embolic division; 31, retrolateral view; 33, ventral view; 34, palpal tibia. Images taken from right palp, reversed to appear as left palp. Scale bars = 0.1 mm in 28, 29, 31; 0.01 mm in 30, 33, 34. See text for abbreviations.

chaetotaxy of *Apobrata* and *Tapinocyba* (1-1-1-1, TmIV absent) differs from that reported for *Abacoproeces* (2-2-1-1, Tm IV present) and *Mecynargus* (2-2-2-2, 2-2-2-1, 2-2-2-0, or 2-2-1-1, TmIV present or absent) (Millidge 1977, Roberts 1993).

Justification of monotypy.—Few erigonine spiders are described from the islands off Southeast Asia. *Apobrata* shares characteristics with *Abacoproeces* Simon 1884 (two species, Palearctic), *Tapinocyba* Simon 1884 (41 species, Holarctic), and *Mecynargus* Kulczyn'ski 1894 (14 species, Holarctic); it is unclear which if any of these genera is the closest relative of *Apobrata*. A new phylogenetic analysis, which could determine the placement of *Apobrata* within the Erigoninae, is beyond the scope of this paper. The examination of additional material from the Philippines and vicinity may reveal new *Apobrata* species.

Distribution.—Philippines.

Species included.—*Apobrata scutilla* (Simon 1894), new combination.

Apobrata scutilla (Simon 1894) NEW COMBINATION
Figs. 23–26, 28–34

Brattia scutilla Simon 1894:674 (♂♀); Roewer 1942:705; Bonnet 1955:914; Murphy & Murphy 2000:512; Platnick 2004.

Types.—PHILIPPINES: Manila [14°35′N, 120°59′E]: lectotype male, 11 paralectotype males, 26 paralectotype females, E. Simon (NMHN, 11275, examined). Holm indicated the male lectotype by placing it in a labeled microvial with a female paralectotype.

Diagnosis.—Monotypic genus; see genus diagnosis.

Description.—Male (paralectotype): Total length 1.63. Carapace 0.71 long, 0.66 wide, yellow. Abdomen white, darker around spinnerets. Clypeus 0.20 high. AME diameter 0.049, ALE 0.069, PME 0.062, PLE 0.056, AME separation 0.50 times their diameter, AME-ALE separation 0.63 times one ALE diameter, PME separation 0.75 times their diameter, PME-PLE separation 1.11 times one PLE diameter. Sternum 0.43 long, 0.49 wide, dusky yellow. Coxa IV separation 1.40 times their width. Chelicerae pale yellow, dorsal spur absent, fang furrow tapered, with three promarginal teeth. Legs yellow, dorsal tibial macrosetae 1-1-1-1, tibia I length 0.94, metatarsus I length 0.97, tarsus I length 0.66; tibia I 13.19 times longer than wide; TmI 0.30; TmIV absent. Palpal coxae without tubercles. Palpal tibia with one prolateral, one retrolateral trichobothrium; with short, pointed prolateral and retrolateral apophyses (Figs. 24, 34). Cymbium with groove above connection to paracymbium (Figs. 25, 29). Paracymbium a flat hook with three long setae on ectal face (Figs. 25, 29). Subtegulum small, proximal to tegulum; fundus nearly perpendicular to axis of palpal bulb (Fig. 25). Protegulum with scale-like papillae (Fig. 30); junction between tegulum and suprategulum with membranous articulation (Figs. 23, 30); distal suprategular apophysis a short spiral (Fig. 31). Radix with bulbus tailpiece projecting posteriorly; embolic membrane present (Figs. 23, 30). Embolus continuous with radix, curved, projecting dorsodistally (Figs. 23, 30).

Female (paralectotype): Total length 2.25. Carapace 0.81 long, 0.75 wide, orange. Abdomen white, darker around spinnerets. Clypeus 0.17 high. AME diameter 0.049, ALE 0.074, PME 0.069, PLE 0.068, AME separation 0.65 times their diameter, AME-ALE separation 0.60 times one ALE diameter, PME separation 0.71 times their diameter, PME-PLE separation 0.82 times one PLE diameter. Sternum 0.44 long, 0.53 wide, orange. Coxa IV separation 1.67 times their width. Chelicerae orange, with four promarginal teeth. Legs dusky orange, dorsal tibial macrosetae 1-1-1-1, tibia I length 1.10, metatarsus I length 1.13, tarsus I length 0.67; tibia I 13.88 times longer than wide; TmI 0.59; TmIV absent. Ventral plate of epigynum with shallow invagination (Fig. 26). Spermathecae reniform, widely spaced.

Family Theridiidae Sundevall 1833
Genus *Anelosimus* Simon 1891

Anelosimus Simon 1891:11; Bonnet 1955:322; Levi 1956:412; Levi & Levi 1962:16, 51; Levi 1963: 32. Type species *Anelosimus socialis* Simon 1897 [= *Anelosimus eximius* (Keyserling 1884)], by monotypy.

Anelosimus dubius (Tullgren 1910) NEW COMBINATION
Fig. 27

Brattia (?) *dubia* Tullgren 1910:144, pl. 3, fig. 62 (♀); Roewer 1942:705; Bonnet 1955:914; Denis 1962:170; Scharff 1990:122; Platnick 2004.

Types.—TANZANIA: Mt. Kilimanjaro, Kibonoto, Kulturzone, [3°4′S, 37°21′E], 2 syntype females, Colleg. Yngve Sjöstedt (NHRM, examined). Both syntypes in poor condition, coloration faded. One syntype missing some distal leg segments on left legs I and IV and right leg I; second syntype disarticulated at pedicel, prosoma partially flattened, most legs disarticulated and lost.

Justification of transfer.—Tullgren (1910) indicated that he was hesitant about placing this species in *Brattia*. Tullgren even suggested that this species resembles a theridiid, but he was unable to see the comb on tarsus IV. Tullgren also noted that the abdominal pattern reminded him of "*Theridium*" (= *Theridion* Walckenaer 1805); the abdominal pattern is hardly visible in the degraded syntypes. Holm (1962:23) also indicated that *B. dubia* belongs to Theridiidae. *Anelosimus dubius* is similar to other *Anelosimus* species recently recognized from Africa (Agnarsson 2004). Although the form of the colulus cannot be determined from the syntypes, *Anelosimus* species including other African species lack a colulus but retain two setae (Agnarsson 2004). Also, *Anelosimus* species usually have denticles on the retromargin of the chelicerae; no denticles are visible on the syntypes, but the apparent absence of retromarginal denticles may be due to the condition of the specimens.

Description.—Female (syntype): Total length 2.13. Carapace 0.94 long, 0.72 wide, orange, head region covered in even patch of setae. Abdomen pale, dorsal folium faded, originally reported as whitish with a series of brown transverse chevron markings (Tullgren 1910). Clypeus 0.16 high. AME diameter 0.068, ALE 0.074, PME 0.074, PLE 0.078, AME separation 0.68 times their diameter, AME-ALE separation 0.38 times one ALE diameter, PME separation 0.83 times their diameter, PME-PLE separation 0.48 times one PLE diameter. Sternum 0.51 long, 0.44 wide, dusky yellow, labium-sternum separated. Coxa IV separation 1.32 times their width. Chelicerae pale orange, with three promarginal teeth. Femur I strong, orange dorsally, otherwise pale yellow, leg lengths I-IV-II-III, tibia I length 0.93, metatarsus I length 0.85, tarsus I length 0.47; tibia I 7.83 times longer than wide; tibia IV length 0.60, metatarsus IV length 0.58, tarsus IV length 0.40; tibia IV 5.00 times longer than wide. Ventral plate with notch-like posterior invagination (Fig. 27). Spermathecae large, closely spaced.

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